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Lab management team's new faces



Cherry A. Murray

Murray named deputy director for Science and Technology

Cherry A. Murray, senior vice president at Bell Labs, Lucent Technologies for Physical Sciences and Wireless Research, has been named as the deputy director for Science and Technology at the Laboratory. The appointment was announced today by Lab Director Michael Anastasio and confirmed

See **MURRAY**, page 7



Jane C.S. Long

Long named associate director for Energy and Environment

Jane C.S. Long, a hydrogeologist and geotechnical engineer with more than 34 years of national laboratory and academic experience has been selected as the Laboratory's associate director for Energy and Environment. The appointment was made by Lab

See **LONG**, page 3

Mara announces retirement; Shotts to serve as acting deputy director for Operations

Back in 1971, Glenn Mara was fresh out of graduate school when he made the decision to join the as a materials scientist/welding engineer.

"I joined at a time when there were few new hires," he noted. "But because I was a specialist with a critical skill, I was offered a position. Coming to LLNL in those days was like a kid going into a candy store. It was a challenging, exciting and wonderful time for a young researcher. While many things have changed, I believe those words still describe much of LLNL today."

Now, 33 years later, Mara is still considered a specialist whose critical skills the Lab has consistently needed over the years. From welding engineer/materials scientist to a division leader in both Chemistry and Materials Science and Engineering, to program leader for Nevada



Glenn Mara



Wayne Shotts

See **APPOINTMENTS**, page 8

New bioscience laboratories provide links to biosecurity and the medical community

By Anne M. Stark
NEWSLINE STAFF WRITER

The Laboratory on Thursday debuted two new laboratories, one that will conduct basic science in biosecurity and environmental biology and the other that will take advances in bioscience around the Laboratory and link them to the medical community. The BioSecurity and Nanosciences Laboratory (BSNL) serves as an incubator for exploratory science at the boundaries of chemistry, materials science and biology, which is then nurtured in support of the Lab's mission in nonproliferation, counterterrorism and life sciences. The Center for Biotechnology, Biophysical Sciences and Bioengineering (CBBB) serves as a one-stop shop where academic and private researchers can partner with any number of scientists to work on emerging medical, bioscience and environmental technologies.

See **NEW LABS**, page 7

Claire Max wins 2004 E.O. Lawrence Award

By Lynda Seaver
NEWSLINE STAFF WRITER

Claire Max, a longtime astrophysicist at the Laboratory and a faculty member at UC Santa Cruz, is one of seven winners of the Department of Energy's prestigious E.O. Lawrence Award for 2004. The award is given in seven categories for outstanding contributions in the broadly defined field of atomic energy. Max will receive the award in the physics category for her contributions to the theory of laser guide star adaptive optics and its application in ground-based astronomy to correct telescopic images for the blurring caused by light passing through the atmosphere. Max is a member of the

See **AWARD**, page 4



LAURIE HATCH/LICK OBSERVATORY

Claire Max of the Lab's Institute for Geophysics and Planetary Physics stands in front of the adaptive optics system at the Lick Observatory on Mt. Hamilton.



Down HOME
campaign chair 2004
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A clue to plague
mystery
— Page 5



Unclogging truth
about cholesterol
— Page 8



LAB COMMUNITY NEWS

Weekly Calendar

Technical Meeting Calendar, page 4

Saturday
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The Asbury United Methodist Church will be holding its **annual community flea market** today from 9 a.m.- 2 p.m. at 4743 East Ave., Livermore.

Booth spaces are still available. Cost to rent a space is \$15 and tables may be rented for an additional \$5 (while they last). The church will also accept useable donations for the church booth. Call 447-1950 to confirm drop off times. Proceeds from this year's event will go to Habitat for Humanity. For more information call 447-1950 or Steve Goodman at 449-5308 or send an e-mail to steve.goodman1@comcast.net.

Monday
27

The **Valley Concert Chorale** is seeking experienced choral singers with sight reading ability for the 2004-2005 season.

The Chorale rehearses Monday evenings. Season auditions will be held today at the First Presbyterian Church, Fourth and L streets, Livermore. For an appointment, call 462-4205.

Thursday
30

The Benefits Office will continue the brown-bag series on how to enhance your financial security by participating in the **Tax-Deferred 403(b)**.

The next session will be today from 12:15- 1:15 p.m. in Bldg. 571, conference room 2301. Additional sessions will be held on the last working day of each month (excluding November and December) throughout 2004. Attendance is open and no pre-registration is required. Bring your lunch and your questions. For additional information about benefit services or events, see the Website at www.llnl.gov/llnl/02employment/benefits/seminars.htm.

...

The 2004 **CalPERS Long-Term Care** application period ends today. The program is available to all California public employees and retirees, including University of California employees and their family members. An informational video and application kits regarding the CalPERS Long-Term Care Program are available in the Benefits Office, Bldg. 571, room 1205. For additional information, visit the Benefits Website at www.llnl.gov/llnl/02employment/benefits/benefits.htm or call 2-9955.



The University Relations Program cordially invites Laboratory scientists, researchers, post-docs and student employees to attend the fifth annual poster presentation by participants in the **SEGRF (Student Employee Graduate Research Fellowship) Program**.

It will be held at the West Cafeteria Thursday, Oct. 14, from 3-5 p.m. For more information, call Joanna Allen in the University Relations Program office, 3-9225.

Veteran author on Vietnam lessons

U.S. Army veteran and author Lee Basnar will present "Commanding Charlie Company in Vietnam" at 12:10 p.m. Thursday, Sept. 30, in the Bldg. 361 auditorium.

As a sergeant-first-class, Basnar served as an adviser to the army of the Republic of Vietnam's 22nd Infantry Division helping to train Vietnamese soldiers. Basnar returned to Vietnam for a second tour of duty as a captain commanding an infantry company. Because he understands that today's soldiers and their families face simi-



Lee Basnar

lar circumstance to those he and the men he commanded faced in Vietnam, he wrote a book, "Vietnam Vignettes: Tales of an Infantryman."

Basnar's military career also took him to Germany, France, Alaska and several assignments in the continental United States. He retired as a major. After his retirement in 1981, he lived for 16 years in the Alaskan bush, where he ran a trap line, subsisted on fish and game, became a bush pilot and wrote articles for magazines, including *Alaska Magazine*. For more information, contact Michele Cardenas, 3-2796.

Hispanic Heritage Month celebrated



Latin jazz band.

A celebration of Hispanic Heritage Month will be held from 11:30 a.m. to 1 p.m. Thursday, Sept. 30, in the picnic area near the Lab pool. Cultural entertainment will be provided by the Tezkatlipoka Aztec Dancers and Timbalero, a salsa and

Tamales, pork or chicken will be for sale for \$15 a dozen or \$8 a half dozen. There are no pre-sales. Lunch plates also will be available for \$6.50: papusas, chile Colorado or tamale served with rice, beans, tortilla and drink. Tickets may be purchased the day of the event. The celebration is presented by the Amigos Unidos Networking Group and sponsored by the Worklife Programs office.

IN MEMORIAM

Robert Brooke Petrie

Retired engineer Robert "Bob" Brooke Petrie died Sept. 2. He was 75.

Petrie first came to the Laboratory when it was still the UC Radiation Lab. Trained as a civil engineer at Healds Engineering College, he spent more than 17 years in the Nuclear Test Program before moving to Plant Engineering where he served as division leader for the Construction Management Division. The highlight of Petrie's career in the test program was his work in the planning and field construction for the Cannikin Event. Petrie retired in 1991 after

a 37-year Lab career.

Born in Brooklyn Oct. 5, 1926, Petrie was 3 when his family moved to California. He enjoyed travel throughout the world and was a dedicated volunteer at the Museum of the San Ramon Valley in Danville.

Petrie is survived by his wife, Constance Hartwell Petrie; daughter, Jane Petrie Wilson; grandchildren, Paige, Christian and Lucas Wilson; nephew David Hartwell; niece, Lisa Bollman and sister-in-law, Sara Hartwell.

Services were private.

Newsline

Newsline is published weekly by the Internal Communications Department, Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

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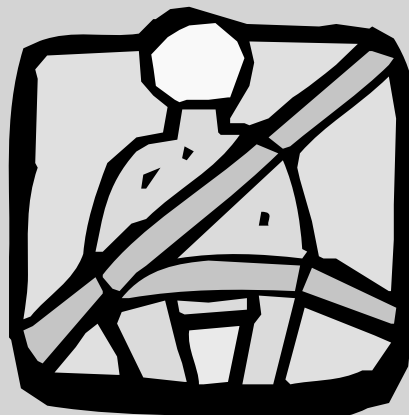
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Web site: <http://www.llnl.gov/PAO/>

Be a
Bucklehead



Not a
Knucklehead

AROUND THE LAB



For Al Moser, annual campaign is close to HOME

Al Moser, operations manager for the Chemistry and Materials Science Directorate, is chair of the 2004 edition of the campaign to help others more effectively, or HOME. A 17-year Laboratory veteran, Moser earned his MBA from UC Berkeley. Newsline spoke with him in his office earlier this week.

Q: What has been your involvement with past HOME campaigns?

A: I have served as a HOME representative and last year was chair of the Run for HOME. It was a great experience. I got to see first hand how much people care about the campaign and are willing to lend a hand. About 300 volunteered. It reflects how much we interact with the surrounding community.

Q: HOME campaign 2004 is seeking to raise \$1.6 million. What's the key to achieving that goal?

A: We're not focusing solely on the monetary goal, but on increasing overall participation in the campaign. This can also include volunteering time. The HOME Website lists volunteer opportunities with non-profits supported by the campaign. In this way we can help connect employees with the agencies they care about. And, of course, people can volunteer to help the HOME campaign itself. If we increase participation, the rest will take care of itself.

Q: How do you get more people to participate in the HOME campaign?

A: A lot of employees already volunteer with local agencies throughout the year. We're trying to create opportunities for them to share their involvement with others through the HOME campaign. The



JACQUELINE MCBRIDE/NEWSLINE

Al Moser

organizing committee also is encouraging Lab groups and organizations to invite representatives from non-profit agencies to make presentations. We will help make the arrangements. If people hear about how local agencies benefit from HOME donations, they're more likely to get involved.

Q: Why is it important to get involved in the campaign?

A: It's very rewarding. In addition we all have a stake in the success of these agencies and the campaign that helps sustain them. They provide services we, or people we know, have needed at some time and which may not be available from other public services. By supporting non-profits that provide social services as well as a variety

of cultural activities, such as Livermore Opera and Amador Symphony, we're enriching the quality of life for all members of the community.

I have been involved with organizations that support people who suffer diabetes and fund research. There's a history of diabetes in my family, so that's very important to me. Many people have personal reasons to be involved with non-profit services. One of the great things about HOME is that it brings us all together.

Lastly, it allows us as a Laboratory to show that we're civically involved and that we care about the community.

Q: Are there any new features of the campaign this year?

A: We've made electronic filing as easy to use as filling out the paper form. It's very self-explanatory and allows for monthly or one-time contributions. This saves the time and effort of volunteers processing the forms. We're also introducing for the first time early electronic filing starting Oct. 11. The first 500 employees who file early will receive an official commemorative pin of the 2004 Olympics to be distributed at the Run for HOME. We hope to set a precedent so that in future years, we can save money by printing fewer HOME booklets.

Q: How is HOME going to celebrate its 30th anniversary?

A: The best way to celebrate is by making it the most successful campaign to date. We do that by building on all the campaigns that have come before. The Olympic theme of "bringing HOME the gold" is appropriate to a milestone anniversary celebration.

LONG

Continued from page 1

Director Michael Anastasio and confirmed by the University of California Regents. Long replaces C. K. Chou, who retired in June. Long will begin her new assignment Nov. 8.

"I am extremely pleased Jane has accepted this position," Anastasio said. "She is an outstanding scientist and engineer with impressive professional experience and credentials. She is well regarded nationally, especially in laboratory and academic communities. She will be a wonderful addition to our senior management team and I look forward to working with her."

In her new position, Long will be responsible for leading the development and implementation of the Laboratory's strategic vision for an integrated energy and environmental effort addressing national needs. The directorate's five major programmatic areas include energy technology and security, water and environment, carbon and climate change, Yucca Mountain and repository science, and risk and response management.

In addition, Long will ensure that the Lab maintains and enhances its strong geological, atmospheric and environmental science

research base to support current and future Laboratory programs. The Energy and Environment directorate has 350 employees with an operating budget of \$88 million.

"There is a great deal of very important science that needs to be done in the areas of energy, water and the environment," Long said. "On a technical level, it is an enormous national and international challenge and it will take years for our science to fundamentally affect these issues. But Lawrence Livermore excels at addressing these compelling national needs. Missions truly get accomplished at the Lab and I am looking forward to working with the very capable Lab employees."

Long's impressive background includes a Ph.D in materials science and mineral engineering from UC Berkeley; a master's degree in geotechnical engineering, also from UC Berkeley and a Sc.B in bio-medical engineering from Brown University. Since 1997, Long has been at the University of Nevada, Reno as the dean of the Mackay School of Mines and professor in UNR's Hydrological Sciences and Geological Sciences departments.

Since 2003, she has served as the director of the Great Basin Center for Geothermal Energy, also at UNR. Prior to joining the University of Nevada at Reno, Long was the department

head for the Environmental Remediation Technology Department at Lawrence Berkeley National Laboratory. She also served as department head of the Energy and Resource Development Department. Long started her career at LBL as a staff scientist in 1977.

Long is currently the chair of the State of Nevada Renewable Energy and Energy Conservation Task Force — a legislative appointment. She is a member of the Stanford University College of Earth Sciences Advisory Board, the American Geological Institute Foundation Board and currently chairs the National Academies of Science/National Research Council (NAS/NRC) Committee on Geological and Geotechnical Engineering in the New Millennium. She also served two terms on the NAS/NRC Board on Radioactive Waste Management and was chair of the NAS/NRC Rock Mechanics Committee.

She was chair of the NAS/NRC committee that wrote the book, "Rock Fractures and Fluid Flow; Contemporary Understanding and Applications," by National Academy Press. She is the author of more than 24 technical reports and 20 articles in scientific journals.

An avid outdoors enthusiast, Long enjoys hiking, skiing and biking. She is married to Charles Long and has two grown children, Matthew and Clara.



NEWS YOU CAN USE

AWARD

Continued from page 1

Lab's Institute for Geophysics and Planetary Physics and was its founding director back in the early 1980s. She currently divides her time between the institute and UC Santa Cruz, where she is a professor and deputy director for the Center for Adaptive Optics.

"We are all enriched by the contributions these researchers have made, ranging from engines with no moving parts to better ways to see the stars," Secretary of Energy Spencer Abraham said of this year's winners, six of whom are affiliated with the University of California. Three winners come from Los Alamos National Laboratory and one from Lawrence Berkeley National Laboratory. UC manages all three laboratories for DOE.

"These awards, and the research for which they are given, show that DOE could easily be called the Department of Science and Energy," Abraham said.

Awardees are chosen for their work in one of seven categories: chemistry, national security, nuclear technology, physics, life science, materials research and environmental science and technology. Winners receive a gold medal, a citation and \$50,000. The awards will be presented in a ceremony in Washington D.C. on Nov. 8.

Max is the 25th recipient from the Laboratory since the awards were established in 1959, in memory of Laboratory co-founder and namesake Ernest Orlando Lawrence.

"Claire is an exemplary, internationally recognized



Claire Max

scientist and I extend my sincere congratulations to her," said Laboratory Director Michael Anastasio. "This recognition from DOE appropriately spotlights Claire's accomplishments in plasma physics and astrophysics and provides us all the opportunity to join in celebrating with her these achievements and accolades."

"I cannot believe how good this makes me feel," Max said. "It is quite a thrill to receive this award."

Throughout her career, Max has made important contributions to the separate fields of plasma physics and astrophysics, and she is considered a central figure in the field of adaptive optics (AO) for ground-based telescopes. Her work on laser guide stars, which are used with adaptive optics to correct the blurring of telescopic imagery caused by turbulence in the

atmosphere, has resulted in an ongoing revolution in ground-based astronomy.

Max is one of the co-inventors of the sodium laser guide star, and she is a leader in implementing these new artificial guide stars at astronomical observatories. Today ground-based telescopes, using AO systems driven by laser guide stars, are delivering high-resolution infrared images that rival, or in some cases even exceed, the sharpness of the infrared cameras on the Hubble Space Telescope.

Max recalls her team's early days of research and experimentation on laser guide stars at the Livermore site, and how "the notion of pointing a 1,000 watt laser into the sky to measure turbulence seemed a bit absurd. Even we thought we were a little zany."

But use of laser guide stars went on to bear "impor-

tant fruit, including infrared images and spectra of storms on Neptune, hydrocarbon oceans and ice continents on Titan, and black holes in the core of our own Milky Way and in the center of nearby galaxies," Max said.

Max led a group that built the AO system and sodium laser guide star for Lick Observatory on Mt. Hamilton and designed the laser beacon and AO system for the W. M. Keck Observatory in Hawaii, in a collaboration with observatory staff.

Though laser guide star adaptive optics on ground-based telescopes are still in their infancy, "the expanded science that can be done with such modified telescopes is extraordinary," Max said. "The clarity of ground-based observations is enhanced by a factor of 50 or more so that it becomes comparable with space telescopes, but with all the advantages of the larger telescope size that is possible from being on the ground."

Max joined the Laboratory in 1974 as part of a new group formed to understand the plasma physics of laser fusion. In the early 1980s, Max's career branched out widely. She became the founding director of the Institute of Geophysics and Planetary Physics, a position she held for nearly a decade. She also became the first female member of the elite JASON group of scientific advisers to the Department of Defense.

Max joins a list of Lawrence winners that includes former Lab directors Michael May, John Foster, Herb York and John Nuckolls.

Other recipients of this year's awards include Bette Korber (life sciences), Fred Mortensen (national security) and Gregory Swift (environmental science and technology) of Los Alamos National Laboratory; Richard Saykally (chemistry) of Lawrence Berkeley and UC Berkeley; Ivan Schuller (materials research), UC San Diego; and Nathaniel Fisch (nuclear technology), Princeton Plasma Physics Laboratory.

Technical Meeting Calendar

Friday
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INSTITUTE FOR GEOPHYSICS AND PLANETARY PHYSICS

"Metals, Masses and Feedback at High Redshift," by Alice Shapley, UC Berkeley. Noon,

Bldg. 319, room 205. Contact: Wil van Breugel, 2-7195, or Sharon Taberna, 3-6290.

Monday
27

LLNL/NAVAL POSTGRADUATE SCHOOL

Don Prosnitz of NAI will present a lecture at the Naval Postgraduate School, Monterey. 1

p.m., Mechanical Engineering Auditorium, NPS. Check the University Relations Program's Website at <http://npslectures.llnl.gov> for detailed information on the lectures. Contact: Harry Radousky, 2-4478, or Brenda Foster, 3-8257.

BIOSECURITY & NANOSCIENCE LABORATORY/CHEMICAL BIOLOGY & NUCLEAR SCIENCE

"Integrated Optical Sensors for Single Molecules Based on Hollow-Core ARROW Waveguides," by Holger Schmidt, Electrical Engineering Department, UC Santa Cruz. 2 p.m., Bldg. 151, room 1209 (Stevenson Room). Foreign nationals may attend if appropriate security plan is on file, which includes Bldg. 151. Refreshments will be served. Contact: Thomas Huser, 3-6952, or Katie Thomas, 2-7903.

Tuesday
28

RADIATION DETECTION CENTER

"Progress of the General Pur-

pose Monte Carlo Project," by Ken Sale. 11 a.m., Bldg. 151, room 1209 (uncleared area). Contact: Ron Wurtz, 3-8504, or Christie Shannon, 3-6683.

Thursday
30

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"Digital Libraries and Data Intensive Computing," by Reagan Moore, San Diego Supercomputing Center. 3

p.m., Bldg. 451, room 1025 (property protection area). For more information: <http://www.llnl.gov/casc/calendar.shtml>. Contact: Ghaleb Abdulla (CASC), 3-5947, or Leslie Bills, 3-8927.

H DIVISION SEMINAR

"Recent Advances in Laser-heated Diamond Cell Research: Applications to Mineral Physics of Planetary Interiors," by postdoc applicant Jung-Fu Lin, Geophysical Laboratory, Carnegie Institution of Washington D.C. 10 a.m., Bldg. 319, room 205 (controlled area). Contact: Choong-Shik Yoo, 2-5848, or Wendy Dossey, 3-5556.

INSTITUTE FOR GEOPHYSICS

October
1

& PLANETARY PHYSICS

"Studying Binary Asteroids with NGS and LGS AO Systems," by Franck Marchis, UC Berkeley. Noon, Bldg. 319, room 205. All attendees need

to be badged. Contact: Wil van Breugel, 2-7195, or Rachael Mills, 2-6333.

BIOSECURITY & NANOSCIENCES LABORATORY

October
5

"The Native Architecture of a Photosynthetic Membrane," by Raoul Frese, University of Twente and Free University, Amsterdam. 2 p.m.,

Bldg. 155 auditorium. Contact: Alex Malkin, (949) 824-4397, or Josie Morgado, 2-7181.

STUDENT EMPLOYEE

October
14

GRADUATE RESEARCH FELLOWSHIP (SEGRF)

The University Relations Program cordially invites laboratory scientists,

researchers, postdocs and student employees to attend the fifth annual poster presentation by participants in the SEGRF Program. 3-5 p.m., West Cafeteria. Contact: Joanna Allen, at 3-9225.

October
15

ENGINEERING /CENTER FOR COMPUTATIONAL ENGINEERING (CCE)

"Regional Wind Field Classification Employing Cluster

Analysis and Principal Component Analysis," by Lee Glascoe. 10 a.m., Bldg. 235, room 1090 (Gold Room). Contact: Ann Tyler, tyler8@llnl.gov, to obtain the abstract.

The deadline for the next Technical Meeting Calendar is noon, Wednesday.

Send your input to tmc-submit@llnl.gov. For information on electronic mail or the newsgroup llnl.meeting, contact the registrar at registrar@llnl.gov.

NEWS OF NOTE



Missing genes may explain plague bacteria’s virulence

Charles Osolin

NEWSLINE STAFF WRITER

What makes the germ that causes plague so fearsomely lethal, while a close relative only produces digestive disorders and is rarely fatal?

The answer may be in its genes, or rather, its lack of them.

By comparing the genome of the plague bacillus, *Yersinia pestis*, with the almost-identical DNA sequence of *Yersinia pseudotuberculosis*, an international team led by researchers at the Laboratory has found that the inactivation of several hundred genes as the plague bacterium evolved may be largely responsible for its virulence.

“This work is seminal because it has enabled us for the first time to follow the precise molecular events that led to the emergence of this highly virulent bacterium,” said biologist Emilio Garcia of the Lab’s Biology and Biotechnology Research Program, who headed the research team.

The research, conducted in conjunction with the *Yersinia* Research Unit of the Institut Pasteur in Paris and several other organizations, was reported earlier this month in the online edition of the *Proceedings of the National Academy of Sciences*. It suggests that natural selection may have led to the inactivation of genes that tended to suppress *Y. pestis*’ lethality, possibly giving it an evolutionary leg up on its more benign cousins.

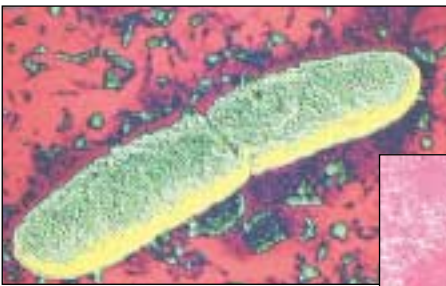


JACQUELINE MCBRIDE/NEWSLINE

Biologists Emilio Garcia, left, and Patrick Chain led the team that sequenced *Yersinia pseudotuberculosis*, a close relative of the plague bacterium.

Evolutionary pressures also may have made the bacterium better adapted to colonize the flea, its preferred means of transmission, and thus facilitated the flea-borne spread of the disease.

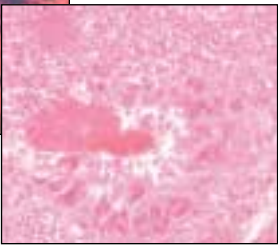
Perhaps the most infectious of all bacteria in humans, *Y. pestis* was responsible for the bubonic



THE LEARNING COMPANY, INC.

Above, *Yersinia pestis*, the bacterium that causes plague.

Right, *Yersinia pseudotuberculosis*, which causes symptoms similar to tuberculosis, but is rarely fatal.



MICHEL HUERRE

plague, or “Black Death,” that killed millions of people in Asia and Europe in the Middle Ages. The disease has long been considered a prime candidate for bioterrorism because of its extreme virulence and its potential to be spread through the air as well as by infected fleas.

To get at the genetic basis for the deadly nature of *Y. pestis*, the researchers first sequenced the complete genome of *Y. pseudotuberculosis*, an animal and human pathogen that can cause fever and appendicitis-like pain if ingested in water or food. They then compared the *Y. pseudotuberculosis* genome with the DNA sequences of two previously sequenced *Y. pestis* strains.

While the comparison revealed a number of genes in the plague bacterium that are not present in its relative, Garcia said the more important finding was the extent of gene inactivation in *Y. pestis*.

Sequencing of the *Y. pseudotuberculosis* genome was part of a “Biofoundation Initiative” funded by the Department of Energy’s Chemical and Biological Nonproliferation Program (since transferred to the Department of Homeland Security’s Science and Technology Directorate).

New ‘one-stop shop’ security portal now available

By Jason Carpenter

SECURITY DEPARTMENT

The Lab’s intranet has a new one-stop shop for security on the Web: the new Safeguards and Security Portal. The portal replaces the Your Guide to Safeguards and Security site, which has been the centerpiece of the Safeguards and Security Organization’s Web presence since June 2002.

All of the elements are still there, including links covering Integrated Safeguards and Security Management (ISSM), the security feedback form, security points of contact, program security representatives, cyber security, clas-

sification, classified handling, unclassified controlled information (UCI), operations security (OPSEC), restricted items, badging and clearances, foreign national issues, and all other security Web pages that help you work more securely.

There are also a number of new pages within the site, including an updated roles, responsibilities and authorities Website replacing the old PDF file, an expanded physical and technical security Website and a page describing the three different types of security-oriented escorts at the Lab. In addition, the content has



Integrated Safeguards & Security Management

been reorganized into more functional topics, such as “Foreign Visits and Travel,” “Identifying Sensitive Information” and “Physical and Technical Security.”

The new portal features a second tab, called “Organizations,” which contains security contact information (both routine and emergency) and links to the Lab’s many secu-

rity entities by organization rather than by function, as on the main portal page .

Get to the new Security Portal by clicking the Security tab from the MyLLNL front page.

DOE employees reminded of duty to report fraud, waste and abuse

The Department of Energy (DOE) and National Nuclear security Administration (NNSA) remind employees that it is their duty to report allegations of fraud, waste and abuse to the appropriate authorities, including the DOE Office of Inspector General (OIG).

Any employee who has information about alleged criminal violations relating to DOE programs, operations, funds, contracts, grants or information technology systems shall provide this information to the OIG. Examples of such violations include, but are not limited to: false statements; false claims; bribery; kick-

backs; fraud; DOE environmental, safety, and health violations; theft; computer crimes and conspiracy to commit any of these acts.

The above reporting requirement does not apply to information about espionage. Information regarding espionage should be reported to the Director of Counterintelligence for DOE or the Director of Defense Nuclear Counterintelligence for NNSA, as appropriate.

Noncriminal violations normally should be reported through the supervisory chain. Also, violations of the DOE Standards of Conduct may be reported to the Ethics Counselor in

DOE’s Office of the General Counsel. In addition, employees may report alleged noncriminal violations of the Standards of Conduct directly to the OIG.

Notwithstanding any other provision, employees must, when appropriate, report any information concerning wrongdoing directly to the OIG.

One avenue for reporting information to the OIG is via the OIG Hotline at: 1-800-541-1625 (toll free); (202) 586-4073 (commercial); (202) 586-4902 (fax); ighotline@hq.doe.gov (e-mail) or DOE (mail), OIG, Attn: IG-40, Mail Stop 5D031, 1000 Independence Ave., SW, Washington D.C. 20585.



CLASSIFIED ADS

See complete classified ad listings at
<https://www.ais.llnl.gov/newsline/ads/>

AUTOMOBILES

1998 - Taurus SE 24v duratec engine 41000m \$5000 925-443-9839

2000 - BMW 528i 100% options pkg. 5yr/100k warranty, 2 piece racing rims, lowered, 0-60 6.9sec 21,800 925-355-9144

1999 - Chevy Tahoe, 4x4. Custom Lift. Excellent condition. \$15,900 obo. 77K miles. 924-240-7053

1996 - Buick Regal Custom, Excellent Condition, 3.8L V-6, 106K Highway miles. Blue Book \$4,400, asking \$4,000. 925-484-2907

2000 - DODGE Grand Caravan - White/grey interior, seats 7, dual sliding doors, triple a/c, ceiling VCR, 65K miles, great condition \$10,000 925-443-2114

1980 - Toyota Dolphin Motorhome. 60k original miles. Smog OK. Used for Camping. \$2000 or best offer. 209-983-8886

2002 - BMW330i, fully upgraded with sport and premium packages, moon roof, leather, metallic silver, 39k miles, asking \$29.8k blue book pvt party value 925-447-6707

1999 - Dark Green Honda Accord 4D EX, Leather, CD, Auto. 62,300 miles. Excellent Condition \$12,500 OBO. 925-784-6158

1995 - Ford Taurus wagon w/ third seat, 159,000 miles. \$1,500.00 OBO. 209-823-8089

1993 - Red Honda Del Sol, clean, 97.5 miles, well maintained, spoiler, 125hp, hard top stores trunk, 30-36MPG/EPA. Another 100-150K milesOK. \$5,995 925-785-4680

1997 - Chevy Monte Carlo Z34, Grn/Blk, leather, tint, all power, immaculate. Custom suspension and exhaust. Awesome stereo. Sacrific \$3995 510-410-0927

1999 - Porsche, Boxster, 6K miles!!, Glacier White, Black leather interior, 5sp man. trans., Loaded, Spectacular mint condition. \$36,000. 2-5636 or 650-522-8208

2000 - Acura 3.2TL, 72k mi, 4 door sedan, Silver w/ Black leather, Fully loaded, Excl Cond, Prem Stereo, Htd seats, single family owned, very clean. 925-784-3829

1999 - Pontiac Grand Am GT. Ram-air, loaded. 111K miles. \$5500 OBO. 925-292-2524

1997 - Honda Passport 4WD 5 sd 3.2 liter eng., AC, CD,EW, roof rack, like new interior, red, 76K mi. \$7,000 650-572-8564

1986 - Honda Accord cpe DX,5sp, AC,135K,new tires. Needs carb. gasket, passed smog,failed op.cert. \$600 or B/O 925-373-6353

1996 - Honda Accord EX, automatic, 4 door, leather interior, auto windows & locks, AM/FM radio cassette, sun/moon roof, 100K miles,\$4700,runs great. 925-803-9596

1995 - Buick Regal Grand Sport, \$3800 or best offer, 925-449-5803

1996 - Mazda MPV mini van, great condition. New tires,A/C front & Rear,cruise,tow pkg, tilt,power everything. Moving, must sell, 100k miles. 4500.00/OBO 209-983-8372

2001 - Honda Odyssey LX, Silver, 49k miles Roof Rack, Keyless Entry, \$17,500. 925-373-6814

AUTOMOBILE ACCESSORIES

Cable type tire chains - never used. Fit a variety of 13-15 inch tires. Carrying case included. \$20 925-455-8609

Chevy 283 Small block for sale. It needs rebuilding. Currently disassembled. \$150 obo. 510-506-1728

BICYCLES

12 inch girls bike with training wheels. Excellent condition. \$15 925-294-8182

Ladies Bicycle, gel seat, great condition \$35/obo 209-403-4942

BOATS

1971 18 foot Eliminator Jet boat. 455 olds recently rebuilt. Runs great. \$2500 209-368-4286

Malibu Mystiere Comp Ski Boat w/ trailer. 21 1/2 ft. open bow, skylon pole, excellent cond. Skis, rope, anchor, & life jackets included. 209-982-9209

15ft valco westcoaster, custom boat trailer ,center console,40hp merc 4cyl, deck w/trolling mtr,fish finder,used 3 times 8.5k obo call AI 650-961-6902

1984 Malibu,OMC 4cyl I/O,New Upholstry, AM/FM CD,Battery Isolater w/2nd battery,4-6x9 w/8in bass tube,Nav lights,Single Axle Trailer.\$5000obo 209-483-3960

CAMERAS

Sharp VL-AH50U Viewcam Æ Hi-8 Analog Camcorder, 3 inch Color LCD, Zoom 16X - 400X, Originally \$400 Sell \$200, New Condition. 925-829-9443

ELECTRONIC EQUIPMENT

Sony DVD player, Sony 5 Disk CD player, Sony VHS Recorder, 2 Paradigm lower speakers, 1 Paradigm center speaker. \$450 for all 925-294-9554

Akai GX-3700 Stereo Tape Deck; 7-1/2 and 3-3/4 ips tape speed, fast forward-rewind, 2 hrs recording \$50/OBO 925-449-3821

Yaesu FTDX-560, Hallicrafters S-38D and Panasonic solid state shortwave receiver. Win-book XP-5 laptop. All need tlc (non-working). 209-327-0012

GIVEAWAY

Mini Bike Frame; Dwarf Holly Bushes 925-455-1730

Moving boxes, assorted sizes. Pick up at lab. Save money and be nice to the environment! 925-462-6607

Free Dirt! About 2 Cu Yard. Take some or all! Basic old Pleasanton clay very few rocks. Come and get it. 925-846-2903

Old Radial Arm Saw. Needs a blade wrench to change blades. Works well. Free, you haul. 925-456-3010

60 lb. plus piece of petrified wood, you pick up. 925-443-1769

1963 Karmann Gia. No motor-great for parts. You haul. 925-550-3809

FREE refrigerator with top freezer works good. Good for second refer in garage. 925-447-6728

HOUSEHOLD

Craftsman GT-6000 Garden Tractor with cart, 18-hp Kohler Magnum, 44-in mower. \$1000. Ken cell eves/wkends 209-747-8594, home 209-931-1705

Dining table w/4 chairs \$250 925-449-1481

Noritake China. 8 complete place settings and serving pieces. White with single rose and gold trim. Excellent condition. \$500 OBO. 925-373-6868

Montgomery-Ward 10.3 cubic foot chest freezer. \$40 925-455-8609

SCANDINAVIAN DESIGNS-CherryEntertainmentUnit w/TV storage, doors&3drawers, light-ed-glass top sections, extra componet-shelves.\$285 Email Pictures 925-382-6663

Cherry-stained hickory professional solid wood bookshelf. Shelves on top and cupboards underneath. Like new. \$100 925-294-9554

Matching bedroom set, double bed w/head-board, mattress/box spring, 4-drawer dresser, nightstand, desk w/bookcase & chair, oval mirror. \$350 OBO. 209-823-8089

Couch, three piece sectional with ottoman. Easily seats six. Light biege leather. Very comfortable. \$200. 925-455-0998

Moving sale-6pc Queen platform Bdrm set, china cabinet, leather couch, Oak wall unit & much more.Avail Oct 1...must see.Lathrop 209-858-1206

Kenmore washer & dryer, white, heavy duty 70 series. Good condition, still currently using them. Asking \$60 for the pair. 925-606-0825

Craftsman Jigsaw, can e-mail pictures. Sander, belt/disc combo, can e-mail pictures. Call for details. 925-513-4767

Garage Sale Saturday September 25 and Sunday September 26. Location 4260 Mirador, Pleasanton. 925-294-9758

Band saw, 14in., Enco, 4spd. metal or wood cutting,w/5 extra blades \$170. 209-239-8984

Refrigerator-Kenmore Elite, Black, s/s, auto ice/water on door,\$600OBO. Washer-White, Maytag Atlantis,heavy duty,\$350OBO.Great condition 925-447-7088

Freezer, Wards model HMG 4654 16 cu. ft. good working condition \$75 925-443-1769

China cabinet, beautiful antique oak . Curved glass, medium oak, 1890s. Very good condition. Asking \$950. 209-836-0949

Oak Dining Room Table, country style, excellent condition,2 leaves(60to96 inches).6 chairs(2arms 4 sides)Light oak color. 925-447-6301

Maytag hd washer,gas dryer very good cond. \$250.00 for set .Table saw 10in delta pro. on stand w/wheels \$350. obo Bob 926-600-1661

New blue sofa 6ft,tags still on, \$350/OBO; country kitchen white wooden table and 4 chairs w/cushions \$100/OBO; GE 27inch TV, hardly used, \$100/OBO 925-449-3821

French Provincial twin bed, mattress, desk, white, gold trim \$50, Crib, inner spring mattress, Jenny Lind style excellent condition \$50 925-443-5693

Heavy Duty Washer/Dryer, Large Capacity, washer has very slight leak, otherwise both in excellent condition, \$125/both 925-243-1364

Regrigerator, 23 c.f., Amana, exc. cond., side-by-side, ice/water, white, 5 yrs, \$500. 925-371-1627

Moving: Furniture, appliance, household goods for sale-cheap. 925-449-0463

LOST & FOUND

Lost a Pearl Necklace on Sept. 15. Possible area: B481, B482, Cafeteria and the surrounding area. Thanks a lot. 555-555-5555

MISCELLANEOUS

Sting and Annie Lennox concert tickets for 10/3/04 @ the Chronicle Pavilion in Concord. Please call after 6:00p.m. for more information. 925-625-3079

Big Blow-Out Plant Sale While Building Nursery-1555 Eden Plains Road, Brentwood. Off Chestnut. 925-240-6311

Rummage sale at tracy learning center - sept 25th 8:00-2:00. over 200 families donated toward school fundraiser. corner of 10th st. & tracy blvd. 209-833-9141

TRAINS! N-scale rolling stock, locomotives and model kits. Too many to list, some collectors items, many Great Northern. Call to see-- prices vary. 925-294-9554

MOVING SALE-Everything must sell.6 pc Queen Bdrm set, refrigerator, glass dinette set, oak wall unit & much more..Sat-Sun Oct 9-10 209-858-1206

MOVING SALE, Saturday 9/25 8:30-4:30. A variety of great items, household, clothes, etc! 956 Lisbon Ave, Livermore. Near Granada High. 925-455-5536

Refrigerator, GE side-by-side, 23.7 c.f., 8 years old, very good condition, almond. \$200. 925-443-7422

Video Games-X Box, GC, PS-2 -- GTA III, DBZ Budokai, Starfox Adventures & more. \$15 ea. or BO. 925-292-0348

Enesco collectors: Deluxe Action Mice Series Musicals. All moving parts and lights work. Like new in box. 4 to choose from. Prices vary. 925-600-7551

Router table, Sears Craftzman Professional, 14x24 table w/2 extensions.Used once. New \$120, sell for\$75. 209-239-8984

Saw, Radial arm, Wards 10 inch Model TPC 2608 \$80.00 925-443-1769

Sealy Serta Queen bed, top of the line, \$350 925-449-3821

Oak rolltop desk. Incl. 2 file drwrs, lots of nooks. Oak file also. Great condition. \$350/obo. Must sell. 925-606-4365

top freezer refrigerator, Maytag Plus, white, 21 cu. ft. 69 in. high, 35 in. wide, 33 in. deep, auto icemaker, like new. \$500. 925-455-0998

49er tix vs. SL Rams 10/3 UR Sec 38, 2 tix @ \$64/ea (face value) Several other games avail also 209-599-9942

MOTORCYCLES

2002 - Yamaha YZF 426 \$4,300obo. Has sports suspension, taper handlebars, and hot start button. 209-543-0630

MUSIC INSTRUMENTS

Ibanez PT-5 guitar multi effects pedal. (dist., delay, wha, chorus, phase) and much more. \$150.00. Pg. 02734 925-525-4030

Cymbal bag. Heavy duty,pro quality carry bag for cymbals. Mint condition! \$35. 925-373-6255

Drum heads. Attack brand,Terry Bozzio series. 10/12/14inch,clear. Hardly used! \$20 925-373-6255

3/4 size student Double Bass cover \$35.00 925-443-1769

PETS & SUPPLIES

AKC certified Boxer puppies for sale, fawn and all white markings. Seeking loving home- 925-449-5861

Adorable rescued Kitten- tiger striped & white belly and paws.. Emma is 21 weeks. Spayed, dewormed & all shots complete. \$65 adoption donation 209-833-0607

Rescued kitten, 19 weeks old. Male black medium hair available for adoption. Neutered, shots, dewormed. Adoption fee \$75. Great personality! 925-980-3035

Crate for large dog, hard plastic. Never used. \$80/OBO. 925-443-2821

2 bearded dragon lizards. Very Friendly! Hand raised. Adults. Breeding pair. Must sell moving soon. Cage with all accessories. 150.00/OBO 209-983-8372

RECREATION EQUIPMENT

SADDLE:Crosby Equilibrium All Purpose Saddle; 17inch; excellent condition; BO 925-634-2307 295-634-2307

Boxing accessory. Rafter clamp. Allows a heavy punching bag to be mounted to beam or rafter. Heavy duty , adjustable. \$20. 925-373-6255

HO train layout,4ftx6ft, mountain scenery, switches, etc. Engine and cars not included. 209-823-5845

Toyota Dolphin Motorhome. 60k original miles. Smog OK. Used for camping. \$2000 or best offer. 209-983-8886

Pool, Intex, 8 feet by 2 1/2 feet with filter pump and video instructions. Box never opened, brand new. Paid \$75 plus tax at local pool store. \$45. 925-648-0671

Nordic Track, in great condition. With instruction video. \$50/OBO. 925-443-2821

2002 Treadmill-Healthrider Softstrider S300i like new! \$350 OBO 925-525-0746

RIDESHARING

Express your commute, call 2-RIDE for more information or visit <http://www-r.llnl.gov/tsmp>.

Oakland (580 at Keller) - Seeking commute pal. My truck seats driver plus 1. I am willing to drive alternate days if you do the same in your vehicle. Flexible work schedule. 510-635-6506, ext. 2-0108

Modesto - Modesto/Ripon Van Pool has an opening for a full time rider. 8:00 - 4:30 work schedule. 209-544-6411, ext. 2-2727

Walnut Creek - Looking for carpool members. 4(10s) off Mondays. Hours 7:45am to 6:45pm but can be flexible. 925-381-0711, ext. 3-4048

PATTERSON - Don't commute alone. Join the Vanpool, save \$\$ & wear/tear on your vehicle, get R&R + commuter benefits. Ridership based fares. 209-892-2118, ext. 2-9502

SERVICES

NOTARY PUBLIC. Ext. 2-9504, 925-249-9186

Professional drafting services. Home additions, decks, mechanical, electrical. 3d work also. 510-506-1728

Hauling Service.Estate cleanouts, Attics, Garage, Shed & Barns, Misc... 925-373-9540

Handyman, Carpenter specializing in fences, decks, arbors, custom outdoor barbecue bars for your outdoor entertainment capabilities 925-337-5245

Livermore daycare provider has openings for 1-2 children aged 2 months to four years. 925-606-0697

SHARED HOUSING

South Livermore - Large Mstr Bdrm w/private bath. Friendly easy-going environment. All amenities. \$500/mo includes utilities. 925-606-0260

Livermore - 4 bedroom house, renter to get 2 bedrooms + private bath or the entire upstairs, 1/2 utilities 925-449-5454

Dublin - 2 bedroom, 2 bath duplex, all amenities \$675 per month 925-337-5245

TRUCKS & TRAILERS

1997 - Ford Explorer E.Bauer.Fully loaded, all new parts, exc. condition. Make me an offer! 925-577-7730

1997 - Toyota 4Runner SRD, 4WD, auto, a/c, p/w, p/l, cd changer, leather int., 127,000, excel. cond. \$11,000.00 o.b.o 925-243-1364

1993 - Ford Bronco,2D,Eddie Bauer, 4WD,V8,5.8L,AT, P/S,A/C,P/W,P/L,Tilt wheel, Cruise Control,4-Wheel ABS,Leather,Privacy Glass,Tow,88,800 miles, \$6750.00 925-829-5119

1957 - Chevy Ω ton, straight body, 350/350 PS TW. Includes frame, front clip, rear end for 5lug w/disc brakes. \$6500 209-401-4874

1986 - 1986 29 ft Class C El Dorado Mirada motorhome. Sleeps 6, full bath, many extras. \$10,000. OBO. 925-456-3010 925-456-3010

2002 - Jayco Eagle Summit Model 12SD tent trailer heater,refer,sink,porta-potti,to many extras to list ex.condition Asking \$7,000 call eve. 925-516-5850

1986 - Toyota SR5 with factory turbo charger. King cab, short bed, AT, AC, 170K miles. In good shape. Needs some work. \$1400 OBO. 925-294-8182

2000 - Model 24V Winnebago Chalet Class C. Slips 6, 454 engine, low mi., loaded, exellent cond. 209-982-9209

97 - GMC Sierra SLE, Z71, 9 inch lift, Xtra Cab, power package, 83k miles, brand new BFG 35 inch tires. Call for more info 925-785-1569

1999 - Chevrolet Tahoe 4x4, loaded, 2dr. New brakes runs great looks great \$9,400 obo. 209-603-9295

1982 - Toyota SR5 long-bed with shell, original owner 1800/BO. 925-846-3548

1966 - Ford F150, very good condition, 4k on new engine make offer. 925-447-7786

1984 - 4-WD Nissan King Cab pickup, \$1199. Runs well, light and strong pickup, needs AC work. 925-846-7335

VACATION RENTALS

Yosemite Area - Pine Mountain lake condo 2 bedroom, peaceful, gated golf community. Nearby pool and lake with beach. 408-268-7924

Sooo cute beach cottage in Santa Cruz. 2 bedr, 2 bath, spa, fully equipped kitchen. Near harbor. Sleeps 7-8. 925-245-1114

Maui, HI - Kahana Reef oceanfront 1BR/1BA condominium. Beautiful two-island view, oceanside pool, and BBQs. LLNL rates for year-round reservations. 925-449-0761

San Diego Area (Carlsbad), - Grand Pacific Palisades, Gorgeous 3 bedrrom Condo, sleeps 9, 12/19-26/2004, \$875/week or 12/22-26 for \$525. 925-449-6048

Tahoe Cabin for rent. 2 blocks from Heavenly. Sleeps approx 8 adults. \$375/wk. Call Jan or Steve for details. 925-240-1615

SOUTH LAKE TAHOE - 3 Bedroom 2 Bath Chalet, comfortably furnished, all amenities,Escape to Tahoe!!Off-Season Rates! RESERVE NOW! 209-599-4644

Lake Tahoe - House, 3 bd, 2.5 bath, fenced yard, quiet sunny location, great views of water and mountains call for details. 925-376-2211

WANTED

Drum Set Needed. East Union High Jazz Band in desperate need. Funds limited, donation preferred. 209-982-5168

Fairly current laptop, either PC or MAC to donate to Math Science Network, a non-profit based in Oakland for their educational outreach. 925-455-4846

Looking for an old jukebox record player 925-449-0388

WTB: Chest of Drawers / Dresser. Needs to be delivered to Rockridge. eMail picture and price: 510-562-6833

I am in need of an experienced mover. Moving from Hayward/Castro Valley to Livermore. Need a team by October 5th. 510-881-5033

Carpenter helper, Im swamped. Must have truck, tools 20 to 40 hours per week. Decks, fences, arbors etc., do layout and follow through. 925-337-5245

NEW LABS

Continued from page 1

Employees and media descended on the Bldg. 155 auditorium for a round of presentations before touring the BAMS (BioAerosol Mass Spectrometry) and NanoSIMS labs in Bldg. 151 and the photonics lab in Bldg. 132S.

With a slogan of "Team Science for Life," CBBB personnel manage a biomedical technology program within the UC Davis/LLNL Integrated Cancer Center; host seminars, briefings, workshops and symposia; represent LLNL at University of California systemwide symposia and business meetings; develop a government, foundation and private industry funding base; and serve as a point of information for the Department of Energy, the National Institutes of Health and other agencies seeking the participation of LLNL in grant writing, workshops and new initiatives.

"Livermore has a long and distinguished tradition of applying scientific expertise to human health and medical technologies," said Bill Goldstein, associate director of the Physics and Advanced Technologies Directorate.

"The Lab's experience in health care has also helped in the fight against bioterrorism."

The BSNL has built a science and technology center with a mission to advance state-of-the-art technology to detect, identify and characterize biological molecules and their function. This "front-end" science enables technologies to be developed. It serves as the Laboratory's primary provider of the biochemical, biophysical and biomaterials science that can serve as counterterrorism tools or new diagnostic instruments for detecting disease.

"I'm extremely proud of what is going on here today," said Tomas Diaz de la Rubia, associate director for the Chemistry & Materials Science Directorate. "It's the cutting-edge fundamental research that underpins all the work that the Laboratory performs. We want to bring the science to bare that will meet our national needs."

Both centers focus on assembling multidisciplinary teams, and many BSNL scientists are also active in the CBBB, where they are able to link their research to medical and environmental applications.

For example, through the CBBB, scientists are working on a technique for single-cell cancer detection. Using a specialized technology, scientists can view the molecular composition of individual cells and distinguish a healthy cell from a cancerous cell. By using blood or urine samples, doctors could diagnose cancer earlier and with higher certainty. These techniques may be especially helpful in diagnosing leukemia patients.

"I'm constantly thinking of ways in which scien-



JACQUELINE MCBRIDE/NEWSLINE

Bill Goldstein, associate director of Physics and Advanced Technologies; Dennis Matthews, CBBB director; Jim De Yoreo, BSNL director; and Tomas Diaz de la Rubia, associate director for Chemistry and Materials Science, spoke Thursday at the public debut of the Center for Biotechnology, Biophysical Sciences and Bioengineering and the BioSecurity NanoSciences Laboratory.

tists and doctors can use this technology developed at the Laboratory to defeat cancer," said Dr. Ralph de Vere White, director of the UC Davis Cancer Center. "Are we going to defeat cancer with these tools? Yes, we are."

Each center receives funding from a variety of sources including the Department of Energy Office of Science, the Department of Homeland Security and the National Institutes of Health.

"During the next 10 years, the center could become an indispensable national asset for bioscience and medicine," said Dennis

Matthews, CBBB director. "By working with other agencies, foundations and private industry, we plan to develop national initiatives in the biosciences and secure additional funding."

Both centers are working on cutting edge technology. At BSNL, a flagship technology is BAMS, which can identify airborne pathogens at the single-cell level in about 100 milliseconds. By combining an understanding of laser-particle interactions, the biochemistry of bacteria, and mass analysis, BAMS has built a prototype system than can identify and differentiate between harmful anthrax spores and benign varieties, such as those found in insecticides. Future biomedical applications could include rapid detection of respiratory diseases such as tuberculosis and SARS.

"We serve as an incubator for new ideas in support of the Laboratory's national security missions," said Jim De Yoreo, BSNL director.

"Many times this basic science evolves into technology that can improve human health and environmental protection. BAMS is a great example of this evolution."



JACQUELINE MCBRIDE/NEWSLINE

Above, analytical chemist Keith Coffee explains to the media how BAMS (BioAerosol Mass Spectrometer) works in the field. Below, reporter Leslie Brinkley of ABC Channel 7 news interviews BSNL Director Jim De Yoreo about BAMS' capabilities.



MURRAY

Continued from page 1

by the University of California Regents. Murray will retire from her position at Bell Labs and begin her new assignment with LLNL Dec. 1.

Murray is a physicist who has been nationally recognized for her work in surface physics, light scattering and complex fluids. She is a member of the National Academy of Science, the National Academy of Engineering and the American Academy of Arts and Sciences. *Discover Magazine* named her as one of the "50 Most Important Women in Science" in 2002.

"Our Laboratory and the University of California are extremely pleased to have Cherry Murray as our new Deputy Director for Science and Technology," Anastasio said. "She brings an impressive record of scientific accomplishment, national recognition, management expertise and strategic vision to this position. I am confident that she will greatly enhance our research and development portfolio and I look forward to having her on my management team."

Murray first joined Bell Labs in 1978 as a member of the technical staff. She was promoted to a number of positions over the years, including department head for low temperature physics, department head for condensed matter physics and semiconductor physics and director of Bell Lab's physical research lab. In 2000, Murray became vice president for physical sciences and then senior vice president in 2001. In this role, Murray managed the wireless, nanotechnology and physical research laboratories and was responsible for the relationship of Bell Labs Research with outside businesses, consortiums and government agencies.

"The technology at Lawrence Livermore National Laboratory is excellent," Murray said. "I am very impressed by the breadth of science and engineering as well as the strong physics component and also the interest the lab has in working closely with industry and academia, as well as the government. I am looking forward to managing science and technology on a national scale and to serving our nation with this wonderful capability."

In her new position, Murray will lead and

oversee the Laboratory's science and technology activities. This will include the development of the strategic science and technology plan; development of standards for scientific research performance and program quality; and oversight of efforts to recruit, develop and retain the Laboratory's scientific, engineering and technical workforce. Murray also will direct the Laboratory's \$110 million institutional research and development program, collaborating closely with UC faculty and staff.

Murray received her bachelor's degree and Ph.D in physics from the Massachusetts Institute of Technology. She serves on the governing boards of the National Research Council and Argonne National Laboratory, and the executive board and council of the National Academy of Science. Murray also is a fellow of the American Physical Society and the American Association for the Advancement of Science. In 1989, she won the APS Maria Goeppert-Mayer Award. She is the author of two patents and more than 75 publications.



HEALTH SERVICES UPDATE

Controlling cholesterol to reduce risk of heart disease

Bill Pereira, MD
HEALTH SERVICES DEPARTMENT

September is National Cholesterol Education Month. Cholesterol plays a major role in the development of heart disease, the number one killer in the United States. The only way you can tell if your cholesterol is elevated is by a blood test — there are no symptoms. Lowering high cholesterol levels lessens your risk for developing heart disease, having a heart attack or dying of heart disease.

In a process known as atherosclerosis or hardening of the arteries, LDL (bad) cholesterol accumulates in the walls of arteries and becomes plaque through a series of oxidative and inflammatory changes. Plaque hardens and eventually narrows your arteries, restricting blood flow. A heart attack occurs when plaque in a coronary artery ruptures and a clot forms, cutting off blood flow to part of the heart muscle. The affected portion of the heart muscle dies without emergency medical intervention.

A number of factors can influence cholesterol levels, including diet, weight, physical activity, age, gender and heredity. In the United States, a major contributor to high cholesterol is eating too much fat, especially in the form of saturated fat

(from meat, poultry and dairy products) and trans fats (from oil that has been heated — as in frying — or otherwise processed to “hydrogenate” or “partially saturate” it, as found in many processed foods). Reducing these fats in your diet can substantially lower your blood cholesterol levels. Losing weight and regular physical activity help lower your LDL and raise your HDL levels. And, of course, exercising helps you lose weight.

Everyone age 20 and older should have a lipoprotein profile done after a nine- to 12-hour fast at least once every five years. It measures your:

- Total cholesterol.
- LDL (low density lipoprotein or “bad” cholesterol).
- HDL (high density lipoprotein or “good” cholesterol).
- Triglycerides (another form of fat in your blood).

Updated guidelines for these tests were issued this year and are summarized in the table above. The biggest change is that your LDL target level

Targets	Old guidelines	New guidelines
Total cholesterol	<200 mg/dl	<200 mg/dl
Triglycerides	<200 mg/dl	<150 mg/dl
HDL	>35 mg/dl	>40 mg/dl
LDL	<130 mg/dl	<160 mg/dl for individuals at very low risk <130 mg/dl for many people <100 mg/dl for individuals at higher risk <70 mg/dl for individuals at very high risk

is now based on statistical risk calculations. To calculate your personal LDL target level, access the article in the CV Dictionary section of the NIF/HSD Healthy Heart Program Website <http://www-r.llnl.gov/nif/admin/HealthyHeart.html#diction>.

Additional employee resources

- See HSD’s Website <http://www-r.llnl.gov/healthserv/> for additional information on exercise and cholesterol, including links to external medical organizations.
- Pick up literature on cholesterol and its management at Health Services, Bldg. 663.
- LLNL employees can call Health Services, 2-7462, to schedule a self-pay Coronary Risk Profile for \$8 (our cost).

APPOINTMENTS

Continued from page 1

da Operations and then W Program, to principal deputy of the NIF project, associate director of Engineering and finally, as deputy director, Mara has devoted his working life to a Laboratory that he truly loves.

“I have been fortunate to serve in the national interest and hold some of the best positions at the Laboratory,” reflected Mara. “I spent a third of my career in chemistry, a third in engineering and a third in the programs. These last two years as deputy director for Operations have allowed me to give something back to the Lab on an institutional level after years of technical and programmatic opportunity. I am pleased to be able to end this chapter in that fashion.”

Mara’s decision to retire after 33 years of service was not an easy one. “And it was not a snap decision,” he noted. “While we can take nothing for granted and much remains to be done, the Lab is well positioned for the future. We expect the LLNL contract to be extended two years, we have an excellent record of accomplishment and aggressive continuous improvement and we are adding talented staff and senior managers to our Laboratory team. So the timing is right for me to make this transition.”

“It was with great regret that I accepted Glenn’s decision to retire,” said Director Michael Anastasio. “He has been invaluable to me and the Laboratory as deputy director and I’ve appreciated his insight and leadership. The Lab has been fortunate to have him and I wish him well.”

Mara hopes to replace his 60-80 hour Lab work-week with a mix of business and pleasure. “I hope to continue a limited professional work schedule and I look forward to the expanded personal time,” he said.

As deputy director, Mara describes himself as a hybrid product of Duane Sewell’s and Bob Kuckuck’s management styles. “I am a hands-on manager,” he noted. “I felt it was important for me to personally get involved in the Lab’s operational issues, the challenges and the people, particularly those wearing institutional hats. Without a strong commitment in this area and a willingness ‘to get a little dirty’ it is far too easy to become isolated from the pulse of the Laboratory.”

And that hands-on approach by Mara helped the



Steve Cochran

Lab maintain credibility in the face of today’s challenges.

“We have been fortunate to work with Glenn in the past couple of years to ensure that the Laboratory’s operational activities can match the great science this Lab performs,” said Camille Yuan-Soo Hoo, manager of the Livermore Site Office for NNSA. “I credit Glenn’s ability to communicate and work with others, and his results orientation for many of the Lab’s recent successes. Personally, I am happy that Glenn will have the opportunity to pursue other interests. We will miss working with him.”

Admiral Robert Foley, UC vice president for Laboratory Management agreed. “Glenn has greatly served the Lab and the university. He will be missed. I hope that I can call on him and his institutional wisdom into the future as we deal with the many issues the University addresses.”

“The Lab has survived and flourished, often relying on its initiative and its wits,” Mara noted. “We’re a well-run lab populated by people with a passion for our mission. Over the years we’ve continued to meet the scientific and programmatic, challenges put before us. While we can’t rest on our laurels and we’re not error-free, our Lab and its dedicated employees have risen to every challenge, often performing beyond any reasonable expectation.”

Mara noted that one of his proudest accomplishments was in helping the Laboratory shepherd in the era of Stockpile Stewardship. This included leadership roles in redefining the Nevada Test Site following the cessation of underground testing and contributing to executing the nation’s first stockpile life extension project.

Over the next few weeks Mara will work closely with Wayne Shotts, currently associate director for Nonproliferation, Arms Control and International Security (NAI) and acting director of the Homeland Security Organization, who was named as the acting deputy director for Operations, to ensure a smooth transition. This position will be posted.

Steve Cochran, deputy associate director for NAI, will fill in behind Shotts as the new acting associate director for NAI/HSO.

“Glenn has a tremendous and very positive ‘can-do’ attitude,” Shotts noted. “He has always been accessible and willing to take on the tough challenges. I look forward to following up on the initiatives he started and to working with organizations across the Laboratory to develop approaches that further strengthen our operations.”



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